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GLOSSARY OF TERMS PERTAINING TO TEXTILE PROCESSING

PART 2

UDC 677·02 : 001·4

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GLOSSARY OF TERMS PERTAINING TO TEXTILE PROCESSING

PART 2

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Indian Standard
GLOSSARY OF TERMS PERTAINING TO TEXTILE PROCESSING

PART 2

0. FOREWORD

0.1 This Indian Standard (Part 2) was adopted by the Indian Standards Institution on 15 November 1985, after the draft finalized by the Chemical Methods of Test Sectional Committee had been approved by the Textile Division Council.

0.2 A large number of technical terms are being used in textile processing and their interpretation differs very widely in the industry and outside. This may be due to insufficient information given by the interpretor, or due to the change of technology, trade or business. This standard has been prepared with a view to eliminate ambiguity or confusion arising from various interpretations of definitions of terms relating to different types of textile processes and processed fabrics. It also aims at supplying the most acceptable definitions for such textile terms.

0.3 Some of the important terms have already been covered in Part 1 of this standard.

1. SCOPE

1.1 This standard (Part 2) lays down definitions of terms pertaining to textile processing and processed textiles.

2. DEFINITIONS

A

Accelerant — A substance, which, when added to a treatment bath, speeds up the processing treatment.

Acetylation — The process of introducing an acetyl radical into an organic compound/polymer containing hydroxyl group.

NOTE 1 — The term acetylation is used to describe the proceess of combining cellulose with acetic anhydride.

NOTE 2 — A partial acetylation is sometimes applied to cotton in the form of fibre, yarn or fabric to give it special properties.

Acid Ageing — Ageing in which a volatile acid is present in the vapour.

Acid Dye — An anionic dye characterized by relatively high substantivity for protein fibres and usually applied from an acid dyebath.

Affinity — The quantitative expression of substantivity. It is the difference between the chemical potential of the dye in its standard state in the fibre and the corresponding chemical potential in the dyebath.

Ageing — A process in which fabric is exposed to moist, or saturated steam in absence of air.

Ager — A chamber used for ageing.

Anionic Dye — A dye that dissociates in aqueous solution to give a coloured, negatively charged ion.

Anti-chlor — A chemical used to remove residual traces of active chlorine from materials that have been bleached, chlorinated, or otherwise treated by means of hypochlorite or other oxidizing liquors containing active chlorine. Examples are sodium bisulphite or thiosulphate, sulphurous acid and peroxides.

Anti-static Agent — A substance capable of preventing, reducing, or quickly dissipating electrical charges that might otherwise be produced.

Azoic Dyeing — The production of an insoluble azo compound on a substrate by interaction of diazotized amino (azoic diazo component) and a coupling component (azoic coupling component).

B

Back Grey — A cloth used to support and carry fabric being printed, and also to protect the blanket from contamination by surplus print paste.

Backwashing — The washing of dyed or undyed wool or man-made fibre sliver before or after gilling and/or combing.

Basic dye — A cationic dye characterized by its relatively high substantivity for the acidic types of acrylic fibres and for tannin mordanted cotton.

Batchwise Processing — Processing of materials as lots or batches in which the whole of each batch is subjected to one stage of the process at a time.

Batik — A method of dyeing fabric by which characteristic varied effects are obtained by means of randomly cracked wax resists.

Baulk Finish — A finish in which the material is milled in the grease to the desired dimensions, scoured, dyed, tentered to width, and lightly pressed.

NOTE — The object of this finish which is applied only to woollen materials, is to preserve the original character of the cloth. The material is finished without raising.

Beam Dyeing — The dyeing of yarn or fabric wound on a perforated beam.

Bleeding — Loss of dye from a coloured material in contact with a liquid (for example, water, detergent or chemicals) leading to colouration of the liquid, or of adjacent areas of the same or other material.

Blinding — A marked and undesirable loss of lustre of fibres caused by wet processing.

NOTE — This may be caused by the formation, within or on the fibre, of dyes or other particles that scatter light, or by an alteration in the physical structure of the dye.

Blotch — Any relatively large area of uniform colour in a printed design.

Blowing (Steam) — A process in which steam is blown through cloth usually wound on a perforated roller.

Blown Finish — A finish applied to wool materials, obtained by blowing dry steam through the fabric which is wrapped on a perforated cylinder with an interleaving cotton fabric.

Blueing — A process to enhance the appearance of bleached textiles by the use of a blue colouring matter with or without flourescent brightening agent.

Boarding — A process involving heating under moist or dry conditions carried out to confer a desired shape or size on a stocking or knitted garment.

Bottoming — A thorough scouring usually in preparation for bleaching, dyeing or printing.

Bowl — A roller forming part of a nip through which fibre, yarn or fabric is passed in textile processing.

Burl Dyeing — The coloration of cellulosic impurities in wool piece goods.

C

Calendering — A process in which a fabric is passed through a calender, normally to smooth and flatten it, to close the intersections between the yarns, or to confer surface glaze.

Carbonizing — A process involving the use of acids, acid producing chemicals or acidic gases to eliminate cellulosic matter from mixtures with animal or synthetic fibres.

Carrier (dyeing) — A product added to a dye bath to promote the dyeing of hydrophobic synthetic fibres and characterized by affinity for, and ability to swell the fibre.

Cationic Dye — A dye that dissociates in aqueous solution to give a coloured ion that is positively charged (*see* basic dye).

Chemicking — Bleaching non-protein-fibre materials by means of a dilute hypochlorite solution.

Chlorination — When used with reference to textile processing, a term indicating the reaction of a fibre with chlorine.

Chromate Process — A method of dyeing in which the fibre is treated in a dyebath containing a suitable chrome dye together with ammonium chromate, where by a chromium complex is formed within the fibre.

Chrome Dye — A mordant dye that is capable of forming a chelate complex with a chromium atom.

Chrome Mordant Process — A method of dyeing in which the fibre is pretreated in solution of a chromium compound and subsequently dyed with a chrome dye to yield a dye-chromium complex within the fibre.

Clearing — A treatment applied to printed fabrics with the object of removing traces of unwanted dyestuff from, and improving the whiteness of the uncoloured area. The term is also used to denote an anti-chlor treatment given to wool goods that have been chlorinated. The term is also applied for removal of unfixed dyestuff from dyed goods.

Colour:

a) That characteristic of the visual sensation which enables the dye to distinguish difference in its quality, such as may be caused by difference in the spectral distribution of the light rather than by differences in spatial distribution or fluctuations with time.

b) As (a), but applied directly to the stimulus or the source (primary or secondary) giving rise to the sensation. For brevity, the stimulus is often referred to as the colour.

c) That property of an object or stimulus, or quality of a visual sensation, distinguished by its appearance of redness, greenness, etc, in contradiction to whiteness, greyness, or blackness (that is, chromatic colour in contradiction to achromatic colour).

Colour Quality — A specification of colour in terms of both hue and saturation, but not luminance.

Colour Value — The ratio between the strengths of the dyes yielding dyeings of equal, visual strengths. In printing, this term is synonymous with tinctorial value.

Compatible Dyes — Dyes which, when mixed together, behave in dyeing as a homogeneous dye having similar hue and fastness properties.

Condense Dye — A dye which, during or after application, reacts covalently with itself or other compounds, other than the substrate, to form a molecule of greatly increased size.

Crabbing — A process to set the woollen fabric to avoid any further creasing during subsequent wet processing.

Crepe Embossing — The embossing of a fabric with a pattern resembling a true crepe. The effect may be either permanent or not according to:

a) the nature of the fibre;
b) the conditions of embossing; and/or
c) the post-finishing treatment.

Creping:

a) A suitable wet treatment that allows the relaxation of the strain of highly twisted crepe yarns and so produces the characteristic crepe effect in the fabric.
b) A chemical treatment designed to produce an effect similar to (a).

Cross Dyeing — A dyeing of one component of a mixture of fibres after at least one of the others has been dyed already.

Curing — The heat-treatment of textiles (fibres, yarns, and fabrics but mainly fabrics) designed to complete the polymerization of condensation reaction of added substances.

D

Decatizing — A finishing process, chiefly to improve the handle and appearance of fabric, in which the fabric tightly wound on a perforated roller, is either immersed in hot water, which is also circulated through the fabric (wet decatizing), or has steam blown through it (dry decatizing).

Deep-dye — Descriptive of a process for dyeing or printing carpets, characterized by complete penetration of the dye into the pile.

Deep Dyeing — Descriptive of fibres modified so as to have greater uptake of selected dyes than normal fibres, when the two are dyed together.

Degreasing:

a) The removal of grease, suint, and extraneous matter from wool by an aqueous or solvent process.
b) The removal of natural fats, waxes, grease, oil and dirt from the textile materials by extraction with an organic solvent.

Delustring — A process to subdue the lustre of textile fibres or fabrics by chemical or physical methods.

Depth — That colour quality an increase in which is associated with an increase in the quantity of colourant present, all other conditions (viewing, etc) remaining the same.

Desized Fabric — A fabric from which minimum 80 percent of the initial size has been removed.

Developing — A stage in dyeing or printing during which a leuco compound or dye in an intermediate stage is converted by chemical reaction into a stable dye within the fibre.

Differential Dyeing — Usually descriptive of fibres of the same generic class, but have potentially different dyeing properties from the standard fibre.

Diffusion — A movement of molecules or ions through a solution or fibre due to the existence of a concentration gradient.

Dip — An immersion for relatively short duration, of a textile in a liquid.

Direct Cotton Dye, Direct Dye — An anionic dye having relatively high substantivity for cellulosic fibres when applied from an aqueous dyebath containing an electrolyte.

Direct Style — A style of printing in one or several colours where the dyes are applied to the fabric and then fixed by ageing or other appropriate means. The fabric is usually white but may sometimes be previously dyed.

Discharge Style — Style of printing in which dyed fabric is printed with a chemical composition which destroys the dye locally to give a white pattern or in which a second dye, applied simultaneously with the discharge, produces a pattern of contrasting colours.

Discharging — The destruction by chemical means of a dye or mordant already present on a material to leave a white or differently colour pattern.

Disperse Dye — A class of water-insoluble dyes suitable for dyeing cellulose acetate and hydrophobic fibres usually applied from the aqueous suspensions.

Drawn Pile Finish — A finish given to textile fabric to produce a surface nap or pile that is laid in one direction. The effect is usually produced by raising the wet or damp cloth on a teasle gig.

Dress-face Finish (on Wool Fabric) — A finish characterized by a close cropped surface and high lustre.

Dry Clean — To remove grease, oil and dirt from garments or fabrics by treating them in an organic solvent, as distinct from aqueous liquors. Examples of suitable solvents are white spirit, trichloroethylene, perchloroethylene.

Drying Cylinder, Drying Can — A heated hollow cylinder over which textile material is passed as a means of drying.

Dull, Matt — Term applied to textile materials, the normal lustre of which has been reduced by physical or chemical means.

Dullness — The colour quality, an increase in which may be compared with the effect of the addition of a small quantity of neutral grey dye to the dyestuff, whereby a match cannot be made by adjusting the strength.

Durable Finish — Any type of finish reasonably resistant to normal usage (washing, and/or dry-cleaning).

Durable Press — A finishing treatment designed to impart to a textile material or garment the retention of specific contours including creases and pleats, resistant to normal usage, washing, and/or dry cleaning.

Dye — A colorant that has substantivity for a substrate, either inherent or induced by reactants.

Dye-fixing Agent — A product that is capable of reacting with a dye on a fibre to give improved fastness to water or washing.

NOTE — Dye-fixing agents are normally applied as after-treatments to dyes that already have some affinity for the textile substrate and are so distinguished from mordants.

E

Embossing — A process to produce a pattern in relief on fabrics by pressure with the use of engraved rollers.

Ending — Uneven dyeing consisting in a continuous change in colour from one end of a length of fabric to the other, or a difference in colour between the bulk and the end of a length of fabric. It is also known as *tailing*.

Exhaustion — The ratio at any stated stage between the amount of dye or other substance taken up by the substrate and the amount originally available.

Expression (percent) — The mass of the liquid retained by textile material after mangling. This term is also known as retention and is calculated as percentage usually of the air-dry mass of the goods. (If the dry mass is used, this should be indicated).

F

Fastness — The property of resistance to the agency named (for example, washing, light, rubbing, etc.).

NOTE — On the standard scale, five grades are usually recognized from No. 5 signifying unaffected to No. 1 grossly changed. For light-fastness, eight grades are used, No. 8 representing the highest degree of fastness.

Felting — The matting together of fibres during processing or wear (*see* Milling).

Filling — Non-substantive and generally insoluble materials such as china clay, gypsum, etc, added together with starches or gums during finishing to add weight or to modify the appearance and handle of the fabrics.

Flock Printing — A method of cloth ornamentation in which adhesive is printed on the fabric and finely chopped fibres are applied all over by means of dusting-on, an air-blast, or electrostatic attraction. The fibres adhere only to the printed areas and are removed from the unprinted areas by mechanical action.

Fluidity — The reciprocal of the viscosity expressed in poises (where 1 cP 1 mPa s).

Fluorescent Brightener — A substance that is applied to an uncoloured or a coloured textile material to increase the apparent reflectance in the visible region by conversion of ultra-violet radiation into visible light and so to increase the apparent whiteness or brightness of the textile material.

Friction Calendering — The process of passing fabric through a calender in which a highly polished heated steel bowl rotates at a higher surface speed than the softer (for example, cotton or paper filled or rubber coated) bowl against which it works, thus producing a glaze on the face of the fabric that is in contact with the steel bowl. The friction ratio is the ratio of the peripheral speed of the faster steel bowl to that of the slower bowl and is normally in the range 1·5 : 1 or 2 : 1.

G

Gas — To singe, that is, remove unwanted surface fibres, by passage through flame.

Grey Scale — A series of pairs of neutrally coloured chips showing increasing contrast within pairs, used visually to assess contrast between other pairs of patterns; for example, the ISO (International Organization for Standardization) grey scales comprise two series of chips against which the magnitude of the change in colour of a specimen submitted to fastness test and of staining of adjacent uncoloured material can be visually assessed and rated on a 1-5 scale.

H

Handle — The subjective assessment of a textile material obtained from the sense of touch. It is concerned with the subjective judgement of roughness, smoothness, harshness, pliability, thickness, etc.

Hand-printed Fabric — A fabric printed by hand, (a) by block, (b) by screen, (c) by stencil, or (d) by a combination of these methods.

High-temperature Dyeing — Dyeing under super atmospheric pressure with the object of raising the temperature of the dye liquor above its normal boiling point.

Hue — That attribute of colour whereby it is recognized as being predominantly red, green, blue, yellow, etc.

I

Insolubilizing (Man-made, Regenerated, Protein Filaments) — The process of rendering the filaments resistant to or insoluble in, hot acid baths.

J

J-box:

a) A J-shaped trough or vessel for the processing of textiles from one process to another. The long limb of the J-box forms an inclined plane on which the material accumulates during the dwell period, being withdrawn from the radial portion.

b) An upright J-shaped vessel for continuous wet processing of textiles.

Jet-dyeing — A process for dyeing fabric in rope form in which the fabric is carried through a narrow opening by dye-liquor circulated at a high velocity.

Jig, Jigger — A dyeing machine in which fabric in open width is transferred repeatedly from one roller to another and passes each time through a dye-bath of relatively small volume. Jigs are also frequently used for scouring, bleaching, dyeing and finishing.

K

Kier Boil (Kiering) — The process of prolonged boiling of cellulose and their blends with alkaline liquors in a suitable large container known as a kier, either at or above atmospheric pressure.

L

Lawn Finish — A medium starch finish applied to lawns and other fine-yarn plain cloths to give a crisp finished fabric.

Leuco Dye — A reduced form of dye from which the original dye may be regenerated by an oxidation process.

Levelling — Migration leading to uniform distribution of dye in a dyed material.

Liquor Ratio — The ratio of the mass of liquor employed in any treatment to the mass of fibrous material treated.

Listing — An uneven dyeing effect consisting of a variation in colour between the selvedges and the centre of a dyed fabric.

M

Malange Printing — A printing process in which bands of thickened dye paste, with intervening blank areas, are applied across slubbing of wool or other fibres. The slubbing is subsequently steamed, washed, and then combed to produce a very even mixture of dyed and undyed lengths of fibres (also known as Vigoureux Printing).

Mangle — A machine whose purpose is to express liquid from moving textiles by passage through a nip. The textile may be in rope form or in open width, and the mangle may consist of two or more rollers (bowls) running in contact.

Mass Pigmented Yarn — Yarn produced by the extrusion of the dope containing finely divided dye or pigment particles.

Matching — A process in which the proportions of the dyes present in a material are adjusted so that the final colour resembles to that of a given sample as closely as possible.

Metameric — Descriptive of objects that exhibit metamerism.

Metameric Match — A match that is judged to be satisfactory under a particular illuminant but not under other illuminants of different spectral composition.

Metamerism — A marked change in the colour of an object with a change in the spectral composition of the light by which it is viewed.

Note — Metamerism can be judged only with reference to the changes occurring in other objects in the fields of view as the illumination is changed.

Milling — A process for consolidating or compacting woven or knitted fabrics primarily containing wool.

Milling Dyes, Acid Milling Dyes — Acid dyes having high fastness to wet processes on wool (particularly to milling) and normally applied to protein fibres from weakly acid or neutral dyebaths.

Mordant — A substance that is applied to a fibre for the purpose of forming a complex with a mordant dye within or on the fibre.

Mordant Dyes — Dyes capable of forming a complex with a mordant on a fibre; the dyes may or may not have an intrinsic affinity for the fibre.

N

Neutral-Dyeing Acid Dye — An acid dye that has relatively high substantivity for wool from a neutral dyebath.

Non-ionic Dye — A (water-soluble) dye that does not dissociate electrolytically in aqueous solution.

Onium Dye — A cationic dye that is solubilized by a liable ammonium, sulphonium, phosphonium, or oxonium substituent, which splits off during fixation to leave an insoluble colourant in the fibre.

O

Open Boil — Scouring of cellulosic or their blended textiles with alkaline liquors in open vessels at or near to boiling point.

NOTE — Scours at temperatures lower than the boil are usually referred to as 'steeps'.

Optical Bleaching, Brightening, or Whitening Agent — Preferably referred to as *fluorescent brightener*.

Oxidized Oil Staining, Gilding — Staining of textiles caused by oxidation of oil acquired or applied during processing.

P

Package Dying — The forced circulation of dye liquor through packages of fibre, yarn, or cloth without limitation of temperature. The use of the term pressure dyeing in this connection is depreciated (*see also* high temperature dyeing).

Padding — The application of a liquor or paste to textiles, either by passing the material through a bath and subsequently through squeeze rollers, or by passing it between squeeze rollers, the bottom one of which carries the liquor or paste.

Padding Mangle — A form of mangle for impregnation of textiles in open width in which the textile is passed through one or more nips. The textile may be saturated before passing through the nip, as in slop padding, or the impregnating liquid may be carried as a film on the surface of one of the bowls forming the nip and transferred to the textile as it passes through the nip, as in nip padding. In case of textile dip padding, the textile is passed through a trough containing impregnating liquid.

Pad-steam Process — A process of continuous dyeing in which fabric in open width is padded with dyestuff and, if necessary, with a reducing agent, and is then steamed (*see* Padding).

Piece Dyeing — The dyeing of fabrics in the piece form.

Pigment — A substance in particulate form, which is subtantially insoluble in a medium, but which can be mechanically dispersed in this medium to modify its colour and light-scattering properties.

Pigment Padding — The application of dyes or pigments to fabric by padding through an aqueous dispersion.

Post-Boarding — Boarding after dyeing to confer durable set.

Potting — A finishing process applied mainly to woollen fabrics consisting of treating the fabric on a roller in water at elevated temperatures.

Precreping:

a) The embossing of a fabric containing crepe yarns with a design to influence the uniformity and fineness of the resultant crepe effect produced in subsequent treatment.

b) *See* Crepe Embossing.

Pressure Boil — Scouring of cellulose or their blended textiles with alkaline liquors in closed vessels under pressure.

Proofed Fabric:

a) *Fire* — A fabric resistant to rapid combustion.

b) *Flame* — A fabric resistant to the propagation of a flame beyond the edges of the charred area produced by the application of a test flame.

c) *Shower/Water Repellant* — A fabric resistant to the absorption and penetration of water at the same time retaining a degree of permeability to air.

d) *Smoulder* — A fabric resistant to flameless combustion (glowing or mouldering) after withdrawal or extinction of a test flame.

e) *Water* — A fabric highly resistant to absorption and penetration of water possessing a low degree of permeability to air.

f) *Moth* — A fabric resistant to the degradative action of moth larvae.

g) *Rot* — A fabric resistant to the degradative action of bacteria in soil or water.

h) *Mildew* — A fabric resistant to the action of fungal micro-organisms.

R

Raising — A process to produce a layer of protruding fibres on the surface of woven, knitted or felt fabrics.

Random Dyeing — A form of space dyeing.

NOTE — It is so called because it can be used to produce random colouration in the final fabric.

Rate of Dyeing — The rate at which a standard mass of dye is absorbed by a standard mass of substrate under specified conditions. It may be expressed quantitatively in several ways, such as the mass dye absorbed in unit time, the percentage of dye absorbed in unit time, or the time taken for the substrate to absorb a given fraction of the amount of dye that it will absorb at equilibrium.

Reactive Dye — A dye that, under suitable conditions, is capable of reacting chemically with a substrate to form a covalent dye-substrate linkage.

Relaxation — The releasing of strains and stresses in textile materials.

Resist Dyeing or Printing — A substance applied to a substrate to prevent the uptake or fixation of dye during a subsequent operation.

Resist Style — Style of printing in which undyed material is printed with suitable compounds to give on subsequent dyeing a white pattern on a coloured ground, or a pattern of contrasting colours to the ground by incorporating suitable dyes of colour-producing substances in the resist print paste.

Restraining Agent — A product which, when added to a dyebath, reduces the rate of equilibrium exhaustion.

Retarding Agent — A product which, when added to a dyebath, reduces the rate of dyeing but does not affect the final exhaustion.

Roller Printing — This is a fast and continuous method of registration of variety of colours using engraved copper rollers.

Rope Marks, Running Marks — Crease marks in undyed or finished goods running approximately in the warp direction.

Rotary Screen Printing — A continuous method of printing using rotary metal screens generally made from nickle.

S

Salt Sensitivity:

a) (In dyeing) the extent to which the dyeing properties of dye are affected by the addition of a neutral electrolyte.

b) (Of dyed fabric). The susceptibility to colour change of a dyed material when it is spotted with aqueous solutions of neutral electrolytes.

Scoured Fabric — Fabric which is freed from natural waxes, proteins and added sizing materials by chemical treatments.

Screen Printing — The production of a coloured design on a substrate by the application of a colourant by forcing printing paste or ink through the unblocked areas of a thin gauge screen in contact with the substrate during printing.

Seer Sucker — A fabric characterized by the presence of puckered and relatively flat sections, particularly in stripes, but also in checks.

Shade (n) — A common term loosely employed to describe broadly a particular colour of depth, for example, pale shade, 2 percent shade, fashion shade.

Shade (v) — To bring about relatively small modifications in the colour of a substrate in dyeing by adding a further small amount of dye, especially with the object of matching more accurately with a given pattern.

Sheer:

a) To cut the fleece from a sheep.

b) To cut a nap or pile to uniform length or height (*also called* Crop).

c) To cut loose fibres or yarns from the surface of a cloth after weaving (*also called* Crop).

Shrinkage — The reduction in length (or width) of a fibre, yarn or fabric. It may be induced by, for example, wetting, steaming, alkali treatment, wet processing, laundering or dry heat.

Sighting — Temporary colouration of textile materials either for visual identification of a particular fibre or quality or to enable the printer to see the pattern when applying colourless substances.

NOTE — The term *tinting* is also used in this context.

Size — A film-forming substance, in solution or dispersion, applied normally to warp but sometimes to weft, generally before weaving.

Sizing Dry — The application to textile yarns of suitably compounded sizing materials in solid form which melt at elevated temperatures.

Skitteriness — An undesired speckled effect in a yarn or fabric arising from differences in depth of dyeing between adjacent fibres or portions of the same fibre.

Soaping — A process of removing unfixed dyestuffs from the substrate by using soap/detergent solutions and of obtaining true shade.

Solvent-assisted Dyeing — Dyeing carried out from an aqueous dyebath containing a small proportion of an organic solvent in solution/emulsion which normally acts to accelerate dyeing.

Solvent Dyeing — Dyeing carried out from a continuous non-aqueous phase.

NOTE — Water may be added to assist the dyeing process.

Soupling — A softening process applied to continuous-filament silk yarns that are to be dyed in the gum. The yarns are treated in warm soap solution, and softened in an acid tartrate bath. Such treatments normally remove some of the gum, leaving 10 percent to 15 percent of gum on the fibre.

Sour — To treat textile materials in a bath of dilute acid.

Space Dyeing — The production of multicolour yarns by the application of various colourants at intervals along a yarn by printing or other methods.

Spray Dyeing — The application of colourant to a substrate by using a spray gun with the object of producing ombre effects.

Spray Printing — A form of *stencil printing* where application of colourant is done by spraying only (*see* Stencil Printing).

Stabilized Finish — Treatment applied to a textile material to increase its resistance to dimensional changes during washing and use.

Staining:

a) Any adventitious (undesirable) colour, for example, dye, dirt, oil and metallic contamination on textile material.

b) The fugitive or permanent colouring of material, for example, in histology for identification.

Starch — A carbohydrate component of plants used in sizing (*see* Size) and finishing. Its use in these operations depends on its adhesive or film-forming power.

Steeping — To apply starch in finishing or laundering.

a) **General** — The treatment of textile materials in a bath of liquid usually, though not necessarily, without continuous or intermittent agitation. The term is also applied to processes whereby the materials are impregnated with a liquor, highly squeezed, and then allowed to lie.

b) The process of retting flax straw by immersion in an aqueous liquor is sometimes known as steeping.

Stencil Printing — The application of colourant to a substrate by brushing on or spraying through a stencil usually cut in thin sheet metal or waterproofed paper.

Stenter; Tenter — An open-width fabric-finishing machine in which the selvedges of a textile fabric are held by a pair of endless travelling chains maintaining weft tension.

NOTE 1 — Attachment may be by pins (pin stenter) or clips (clip stenter).

NOTE 2 — Such machines are mainly used for:

a) drying,
b) heat-setting of thermoplastic material, and
c) fixation of chemical finishes.

Stoving — Bleaching of wool, silk, hair or other keratinous materials in a moist condition with sulphur dioxide in a chamber. (Wet stoving is the treatment of a material with a solution of a sulphite or bisulphite).

Strike — The initial rate of dyeing.

Stripping — The removal of dye from fibre.

Style, Printing — A concise, though not necessarily complete, indication of the method of production of a print in terms of the process or the class or classes of dye used (or both).

Sublimation Printing — A process employing dyes that sublime readily and have substantivity for the substrate to which they are applied.

Substantivity — The attraction between a substrate and a dye or other substance under the precise conditions of test whereby the latter is selectively extracted from the application medium by the substrate.

Suede Cloth — A fabric finished in such a way as to imitate suede leather.

Sulphur Dye — A dye that is normally applied from sodium sulphide solution.

Surfactant — An agent soluble or dispersible in a liquid, which reduces the surface tension of the liquid. (A contraction of 'surface-active agent'.)

Swealing:

a) Migration of dye into the angles of folds and creases during drying of a fabric.

b) Partial removal of colour, dirt, or a grease into the surrounding fabric, caused by improper technique in removing stains by hand from a fabric by aqueous or solvent treatment.

NOTE — The resulting mark is frequently referred to as a 'sweal-mark'.

Swelling agent — A substance that causes the total liquid imbibition of a fibre to increase.

Syndet — A detergent that is not a soap (A contraction of 'synthetic detergent').

T

Temperature Range Properties — A qualitative technical evaluation of the behaviour of a dye obtained by examination of the influence of temperature on the uptake of dye in a given time under specific conditions.

Tinted Fabric — A fabric which is coloured with fugitive or easily removable colouring matter commonly used for the purpose of identification.

Tippy Wool — Wool in which the tip portions of the fibres have been so damaged by natural weathering as to have markedly different dyeing properties from the root portions.

Top Dyeing — The dyeing of wool or other fibres as slubbing or top in package form.

Topping — The application of further colouring matter, not necessarily of the same hue or class, to a dyed substrate in order to adjust the latter to the desired final colour.

Transfer Printing — Transfer of a coloured design from paper to another substrate, normally under the influence of heat and/or pressure.

U

Union Dye — A dye or mixture of dyes designed to yield a uniform dyeing on the fibre mixture for which it is devised.

V

Vat — A large vessel for holding textiles processing liquor used for bleaching, dyeing, finishing, etc.

Vat Dye — A water-insoluble dye, usually containing keto groups, which is normally applied to the fibre from an alkaline aqueous solution of a reduced enol (leuco) form, which is subsequently oxidized in the fibre to the insoluble form.

Vigoureux Printing — *See* Melange Printing.

Viscosity (General) — The internal resistance to flow of a fluid.

NOTE — A term applied specifically to signify the viscosity of a standard solution of cellulose in cuprammonium hydroxide solution, of specified copper and ammonia content; size mixings, printing paste, finishing liquors, etc.

W

Washing Liquor — An aqueous solution employed for the physical removal of extraneous substances from textile material.

Washing-off — Treatment of textile material in water or detergent solutions to remove substances employed in previous processes.

Water-mark (Defect):

a) An unwanted *moire* effect produced by the pressure of the surface of one layer of fabric on another.

b) An unwanted light mark on a fabric caused by contamination with water prior to tinting or dyeing on a pad mangle, which results in a reduction in uptake of dye liquor.

Weighting — A process for adding weight to the yarn or fabric by loading with chemical or other substances.

Winch Dyeing — A dyeing process in which one or more endless lengths of fabric are drawn through the dyebath by a reel or drum rotating above the surface of the dye liquor.

Y

Yellowing — The yellow discolouration that may develop on textile materials during processing, use or storage over a long period.

(*Continued from page* 2)

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INTERNATIONAL SYSTEM OF UNITS (SI UNITS)

Base Units

Quantity	*Unit*	*Symbol*
Length	metre	m
Mass	kilogram	kg
Time	second	s
Electric current	ampere	A
Thermodynamic temperature	kelvin	K
Luminous intensity	candela	cd
Amount of substance	mole	mol

Supplementary Units

Quantity	*Unit*	*Symbol*
Plane angle	radian	rad
Solid angle	steradian	sr

Derived Units

Quantity	*Unit*	*Symbol*	*Definition*
Force	newton	N	1 N = 1 kg. m/s^2
Energy	joule	J	1 J = 1 N.m
Power	watt	W	1 W = 1 J/s
Flux	weber	Wb	1 Wb = 1 V.s
Flux density	tesla	T	1 T = 1 Wb/m^2
Frequency	hertz	Hz	1 Hz = 1 c/s (s^{-1})
Electric conductance	siemens	S	1 S = 1 A/V
Electromotive force	volt	V	1 V = 1 W/A
Pressure, stress	pascal	Pa	1 Pa = 1 N/m^2